

Amendments to the Claims

1. (Currently Amended) An air cleaning robot, which performs air cleaning while traveling around a predetermined area having an atmosphere, comprising:

a robot body;

a driving part for driving a plurality of wheels disposed at lower portions of the robot body;

an air cleaning part disposed in the robot body, for drawing-in ~~dust-ladened~~ air from an open intake directed toward the atmosphere and located at a distance from any surface so as to draw air from the atmosphere rather than such surfaces, a cleaning area, air filtering, filtering the atmospheric air, and discharging cleaned air into the atmosphere; and

a controller disposed in the robot body for controlling the air cleaning part and the driving part.

2. (Original) The air cleaning robot as claimed in claim 1, wherein the controller controls the driving part and the air cleaning part simultaneously which allows the robot to both travel around the predetermined area while simultaneously air cleaning.

3. (Original) The air cleaning robot as claimed in claim 1, wherein the driving part comprises:

a pair of driving motors disposed in the robot body and driven by power supplied respectively thereto;

a pair of driving wheels rotated by the pair of driving motors;

a pair of driven wheels proceeding the pair of driving wheels; and

a power transmitting means connecting the driving wheels and the driven wheels.

4. (Original) The air cleaning robot as claimed in claim 3, wherein the power transmitting means includes a timing belt.

5. (Currently Amended) The air cleaning robot as claimed in claim 1, wherein the

robot body is connected to a body cover and forms an exterior of the air cleaning robot, and the air cleaning part comprises:

a suction driving source drawing-in the ~~dust-laden~~ air from the predetermined area;

[[a]] an open suction port connected to one side of the body cover and oriented and connected to draw air from the atmosphere rather than a surface;

a discharge port connected to another side of the body cover to discharge cleaned air;

an air cleaning duct disposed in the robot body in communication with the suction port through to the discharge port; and

a plurality of filters disposed in the air cleaning duct for filtering drawn-in air.

6. (Original) The air cleaning robot as claimed in claim 5, wherein the suction port is disposed at one side of a front portion of the body cover.

7. (Original) The air cleaning robot as claimed in claim 5, wherein the suction port is disposed on one side of an upper portion of the body cover.

8. (Original) The air cleaning robot as claimed in claim 6, wherein the discharge port is disposed at another other side of the front portion of the body cover.

9. (Original) The air cleaning robot as claimed in claim 7, wherein the discharge port is disposed at another side of a front portion of the body cover.

10. (Currently Amended) The air cleaning robot as claimed in claim 6, wherein the discharge port is disposed at another side of an upper ~~portion~~ portion of the body cover.

11. (Original) The air cleaning robot as claimed in claim 7, wherein the discharge port is disposed at another side of the upper portion of the body cover.

12. (Original) The air cleaning robot as claimed in claim 5, wherein the suction driving source is disposed inside the air cleaning duct to draw-in air.

13. (Original) The air cleaning robot as claimed in claim 5, wherein the plurality of filters comprises:

- a first filter for filtering out relatively large dust particles from drawn-in air; and
- a second filter for removing minute dust particles and unpleasant odors.

14. (Currently Amended) An air cleaning robot system operating in an atmosphere, which comprises a driving part for driving a plurality of wheels on a surface and a controller for controlling the driving part, further comprising an air cleaning part controlled by a controller, the air cleaning part operating to draw in air through an open intake directed toward the atmosphere and located at a distance from the surface such that the intake does not draw dust from the surface, and further operating to filter air and return it to the atmosphere, the system automatically traveling along a predetermined area while simultaneously air cleaning.

15. (Currently Amended) The system as claimed in claim 14, wherein the air cleaning part comprises a suction driving source for drawing-in ~~dust-laden~~ air from the predetermined area, a suction port through which air is drawn-in, a discharge port for discharging cleaned air therethrough, at least one filter for filtering drawn-in air, and, when the suction driving source is driven by the controller, air is drawn-in through the suction port and filtered by the filter, and cleaned air is discharged through the discharge port.